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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,350	09/24/2003	Franco Leonardi	81044331/202-0081	2349
28395	7590	11/30/2005	EXAMINER	
BROOKS KUSHMAN P.C./FGTL 1000 TOWN CENTER 22ND FLOOR SOUTHFIELD, MI 48075-1238			VANAMAN, FRANK BENNETT	
			ART UNIT	PAPER NUMBER
			3618	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/605,350

Applicant(s)

LEONARDI ET AL.

Examiner

Frank Vanaman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 6-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/24/03, 2/14/05</u> . | 6) <input type="checkbox"/> Other: _____  |

### **Election/Restriction**

1. Applicant's election with traverse of Invention I (claims 1-10) in the reply filed on Sept. 12, 2005 is acknowledged. The traversal is on the ground(s) that each independent claim 'relates to' electrical systems having various characteristics which applicant has enumerated, and that examination of a plurality of inventions may be made without burden to the examiner. This is not found persuasive in that applicant has not provided any evidence to counter the basis for the restriction, namely that the inventions are distinct in that the process may be practiced by hand or by a series of discrete circuits, and further that the apparatus may be used to practice a process of operating a pure electric vehicle, or a dual power source stationary device. Please note that the statutory basis for a restriction requirement is directed to the presentation of plural inventions in a single application, not a perceived burden on the examiner. In this case, the examiner notes that applicant has not argued that the inventions are patentably indistinct, and in view of the non-presentation of such arguments, it is deemed that applicant believes the inventions to be patentably distinct, and as such, a restriction or election of species would be proper. Furthermore, applicant has not presented any evidence that the examination and search of a plurality of patentably distinct inventions would require no more burden than the examination and search of a single invention. The arguments of applicant may not take the place of evidence in the record.

The requirement is still deemed proper and is therefore made FINAL.

### **Claim Rejections - 35 USC § 103**

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konno et al. (US 6,450,274). Konno et al. teach a method for operating a vehicle which has a first bus for powering accessory loads (11) and having a battery (10) connected thereto; and a second bus for powering an electric motor traction device (4) having an accumulator connected thereto (5), wherein the two busses are connected by a regulating device (9) in the form of a DC/DC converter, which regulates the voltage of the first bus (between 9 and 11) to a predetermined voltage level (col. 2, lines 37-39) under a number of operating conditions including an electric motor assist mode (S15), a startup energy management mode (S2, S3), a running energy management mode (S9, S16). The reference to Konno et al. fails to teach the accumulator as being an ultracapacitor. In view of the transient nature of power demand in a motor assisted hybrid vehicle, it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the accumulator with an ultracapacitor for the purpose of more efficiently accommodating transient power demands in the vehicle electrical system. As particularly regards claim 5, while the reference to Konno et al. fails to explicitly teach the control of the DC/DC converter as preventing flow from the second to first busses while in an electrical motor assist mode, however it would have been obvious to one of ordinary skill in the art at the time of the invention to facilitate all flow of energy in the bus supplying the power drive unit (particularly in that the accessory bus is provided with its own source of low voltage power), so as to prevent robbing from the power drive unit when it is in use.

4. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pels et al. (US 6,543,561). Pels et al. teach a method for operating a vehicle which has a first bus for powering accessory loads (11) and having a battery (12) connected thereto; and a second bus for powering an electric motor traction device (6) having capacitor connected thereto (10) through a DC/AC converter (9a), wherein the two busses are connected by a regulating device (9c) in the form of a DC/DC converter, which regulates the voltage of the first bus (connected to 11, 12) to a predetermined voltage level (col. 6, lines 21-23) under a number of operating conditions including an electric motor assist

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mode (col. 6, lines 23-25), a startup energy management mode (col. 6, lines 44-47), a running energy management mode (col. 7, lines 24-27). The reference to Pels et al. fails to teach the capacitor as being an ultracapacitor. In view of the transient nature of power demand in a motor assisted hybrid vehicle, it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the capacitor with an ultracapacitor for the purpose of more efficiently accommodating transient power demands in the vehicle electrical system. As particularly regards claim 5, while the reference to Pels et al. fails to explicitly teach the control of the DC/DC converter as preventing flow from the second to first busses while in an electrical motor assist mode, however it would have been obvious to one of ordinary skill in the art at the time of the invention to facilitate all flow of energy in the bus supplying the power drive unit (particularly in that the accessory bus is provided with its own source of low voltage power), so as to prevent robbing from the power drive unit when it is in use.

#### **Allowable Subject Matter**

5. Claims 6-10 are objected to as being dependent from rejected base claims, but would be allowable if rewritten in independent form to include all intervening limitations.

#### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nagao (US 5,818,115), Masberg et al. (US 6,365,983), and Shimasaki et al. (US 6,578,649) teach devices which perform power regulation in hybrid vehicles.

7. Any inquiry specifically concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is 571-272-6701.

Any inquiries of a general nature or relating to the status of this application may be made through either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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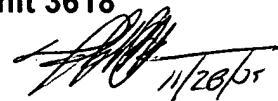
A response to this action should be mailed to:

Mail Stop \_\_\_\_\_  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450,

Or faxed to:

PTO Central Fax: 571-273-8300

**F. VANAMAN**  
**Primary Examiner**  
**Art Unit 3618**



11/28/05